

REMARKS

The claims remaining in the present application are Claims 2-8, 10-13, 15-18, and 26-41. Claims 3-4, 8, 10, 12-13, 15, 26-28, 31-33, 36, and 38-39 have been amended. Claim 41 has been added. Claim 11 has been cancelled, without prejudice. No new matter has been added as a result of these amendments.

EXAMINER INTERVIEW SUMMARY

On May 6, 2004, Ronald Pomerence, representative for the Applicants, conducted a telephonic interview with Examiners Hanh Thai and Uyen Le. The Applicants thank the Examiners for granting this interview. Claims 3 and 8 were discussed with respect to Hoover et al., U.S. Patent No. 5,560,005. The rejections under 35 U.S.C. §112, ¶1 and 2 were discussed.

Claim Objections

Claim 38 has been objected to for an informality. Claim 38 has been amended to correct an informality. Applicants respectfully request removal of the objection.

Claim Rejections

35 U.S.C. §112, ¶1, Written Description

Claims 2-8, 28, and 39-40 are rejected under 35 U.S.C. §112, ¶1, written description requirement. Applicants have removed the term "central"

from Claims 2-8 and 28. Therefore, the Applicants respectfully assert that the rejection to Claims 2-8 and 28 is moot.

Applicants respectfully traverse the 35 U.S.C. § 112, ¶1 rejection to Claims 39-40 for the following reasons. Applicants respectfully assert that the specification does provide support for the claim language, "central repository". Applicants respectfully assert that the originally-filed disclosure would have clearly conveyed to one of ordinary skill in the art that the Applicants had possession of the concept of a central repository.

Adequate description under the first paragraph of 35 U.S.C. 112 does not require literal support for the claimed invention....Rather, it is sufficient if the originally-filed disclosure would have conveyed to one of ordinary skill in the art that an appellant had possession of the concept of what is claimed (Ex Parte Parks, 30 USPQ 2d 1234, 1236-37 (B.P.A.I. 1993) emphasis added).

Applicants have disclosed a repository, which stores thereon information. Moreover, Applicants have disclosed that the repository provides centralized access to the information. Therefore, Applicants respectfully assert that the concept of a "central repository" is supported in the Application as originally filed.

Applicants note that on page 1 of the Application, the Applicants have disclosed, "the present invention relates to a method and device for allowing centralized access to user profile data which is physically located over

numerous databases and may be stored in different formats." Applicants respectfully assert they provided further support for the concept of a central repository at page 12, lines 16-21. "The present invention provides for a method and device for providing *access, via a single entry point*, to user information which may be stored in multiple datasources. Importantly, not all user information need be stored in the system's own database; however, a standard API allows application programs to have a *centralized access* to user information wherever it may be physically located and in whatever format it is stored."

The repository is able to access information that is characterized as outside of the repository system. For example, referring to Figure 4, databases 168a and 168b are internal to the repository 170, while database 168c is external to the repository system 170. However, the repository temporarily stores and provides centralized access to the information that is also stored on the databases. To temporarily store the information from the databases, the repository 170 has a record manager 406. Referring to Figure 5 and page 18, lines 14-19, the record manager 170 comprises a cache 507 of active user records 506. Each cached record 506 holds a list of active views 202 which an application 150 requested. Thus, applications request information from the repository, which the repository retrieves from various databases and stores in the repository.

For all of the foregoing reasons, the Applicants respectfully assert that they have disclosed the concept of a "central repository" in the original Application. As such, Applicants respectfully assert that the rejection under 35 U.S.C. §112, ¶1 has been overcome.

35 U.S.C. §112, ¶2

Claims 2-8, 28, and 39-40

Claims 2-8, 28, and 39-40 are rejected under 35 U.S.C. §112, ¶2, as being indefinite. The rejection asserts that the term "central repository" is indefinite. Applicants have removed the term "central" from Claims 2-8 and 28. Therefore, the Applicants respectfully assert that the rejection to Claims 2-8 and 28 is moot.

Applicants respectfully traverse the rejection to Claims 39-40 for the following reasons. The rejection under 35 U.S.C. §112, ¶2 merely asserts that the term "central repository" is indefinite without stating reasons for this conclusion.

In rejecting a claim under the second paragraph of 35 USC 112, it is incumbent on the examiner to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. (*Ex parte Wu*, 10 USPQ 2d 2031, 2033 (B.P.A.I. 1989) emphasis added.)

Applicants respectfully assert that the rejection under 35 U.S.C. §112, ¶2 does not *provide reasons* why one of ordinary skill in the art would not have

been able to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. Therefore, Applicants request removal of the rejection under 35 U.S.C. § 112, ¶ 2.

Applicants further traverse the rejection under 35 U.S.C. § 112, ¶ 2 on the grounds that one of ordinary skill in the art, reading the claims in light of the specification *would be able* to ascertain with a reasonable degree of precision and particularity the particular area set out and circumscribed by the claims. The specification discloses a repository that may be accessed by application programs running on a variety of platforms and written in a variety of programming languages. The repository receives requests for information from the applications, retrieves the information from various databases, and stores the information on the repository (specification, page 20, line 3 - page 23, line 5 and Fig. 6A, see also page 17, lines 4-23). Thus, the repository provides centralized access to information, which is stored on the repository.

For the foregoing reasons, Applicants respectfully assert that one of ordinary skill in the art, reading the claims in light of the specification would be able to ascertain with a reasonable degree of precision and particularity the meaning of the term, "central repository"; and therefore, the particular area set out and circumscribed by the claims.

Claims 3 and 10

Claims 3 and 10 have been rejected under 35 U.S.C. §112, ¶2 for informalities. The language upon which the rejection is based has been removed from Claims 3 and 10. Therefore, the rejection under 35 U.S.C. §112, ¶2 to Claims 3 and 10 is moot.

35 U.S.C. §103

Claims 2-8, 10-13, 15-18, and 26-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoover et al., U.S. Patent No. 5,560,005 (hereinafter, Hoover) in view of Challenger U.S. Patent No. 6,256,712 (hereinafter, Challenger), and in further view of Gasior et al., U.S. Patent No. 6,691,166. Claim 11 has been cancelled, without prejudice. Therefore, the rejection to Claim 11 is moot. The rejection to Claims 2-8, 10, 12-13, 15-18, and 26-40 is respectfully traversed, for the reasons below.

Currently Amended Independent Claim 3 recites, in part:

- b2) accessing a stored mapping of said fields to said databases;
- c) using said user identifier and said stored mapping, said repository retrieving information corresponding to a first of said plurality of fields from a first of said plurality of databases;
- d) using said user identifier and said stored mapping, said repository retrieving information corresponding to a second of said plurality of fields from a second of said plurality of databases, wherein said first and second database store information in a different format from one another (emphasis added).

Applicants respectfully assert that Hoover fails to teach or suggest the limitations of Claim 3. Applicants understand the information in Hoover's remote databases (28) to be stored in a homogenous format. While Hoover may teach customer databases (26) that may allow for a heterogeneous data format, Hoover teaches that only the remote databases (28) that store data in a homogeneous format are accessed by the ORB. Moreover, Applicants respectfully assert that Hoover requires that the remote databases store their information in a homogeneous format.

The object broker is a central computing entity that is responsible for managing objects within the preferred embodiment of the present invention, and imposing (by virtue of its existence and limitations) a homogeneous data model upon the varying heterogeneous systems at remote user computer sites. (Hoover, col. 21, lines 45-50, emphasis added).

Hoover teaches that each client site must have its own customer specific API (32) in order to convert the heterogeneous data format of a customer database (26) to the system's homogeneous format of a remote database (28) (Hoover, col. 11, lines 30-46). Therefore, Applicants respectfully point out that the homogeneous remote databases from which the ORB accesses data as taught by Hoover may not be modified to arrive at the claimed invention. In other words, Hoover teaches away from the Applicants' claimed limitations of a repository *retrieving information* corresponding to respective first and second fields from first and second databases, wherein

said first and second database store information in a different format from one another.

Applicants further note that the claimed stored mapping is to the databases that store information in a different format from one another. The claimed stored mapping allows information to be retrieved from the databases that store information in a heterogeneous format, which is far more convenient than Hoover's requirement that the data be stored in a homogeneous format in order for it to be accessed by the ORB. For the foregoing reasons, Applicants respectfully assert that Hoover fails to teach or suggest using the claimed stored mapping to retrieve information from the databases, wherein said first and second database store information in a different format from one another.

Applicants respectfully assert that Challenger fails to teach or suggest the claimed repository using the claimed stored mapping to retrieve information from the databases, wherein said first and second database store information in a different format from one another. Therefore, the combination of Hoover and Challenger fail to teach or suggest the limitations of Claim 3. Further, Applicants respectfully assert that Gasior fails to teach or suggest the claimed repository using the claimed stored mapping to retrieve information from the databases, wherein said first and second database store information in a different format from one another.

Therefore, the combination of Hoover, Challenger, and Gasior fail to teach or suggest the limitations of Claim 3.

Moreover, as Applicants have previously argued, the homogeneous remote databases from which the ORB accesses data as taught by Hoover may not be modified to arrive at the claimed invention. This is because to do so would render Hoover inoperable. Therefore, Applicants respectfully assert that even if prior art other than Hoover were interpreted as teaching a "repository retrieving information corresponding to respective first and second fields from first and second databases, wherein said first and second database store information in a different format from one another," such a teaching could not be combined with Hoover's teaching of the ORB retrieving information from remote databases having a homogeneous format.

For the foregoing reasons, Hoover, Challenger, and Gasior, alone or in combination, fail to teach or suggest the limitations of Claim 3.

Consequently, Applicants respectfully request allowance of Claim 3.

Independent Claims 10, 26, and 31 contain similar limitations to the limitations discussed in the response to Claim 3. Therefore, the reasoning discussed in the response to Claim 3, is applicable to these claims. As such, allowance of Independent Claims 10, 26, and 31 is earnestly requested.

Claims 2, 4-8, 12-13, 15-18, 27-30, and 32-40 depend from Claims 3, 10, 26, and 31, which are believed to be allowable for the foregoing rationale. As such, Claims 2, 4-8, 12-13, 15-18, 27-30, and 32-40 are believed to be allowable.

Claims 6, 8, and 38 are believed to be allowable for the following additional reasons.

Claim 6

Claim 6 recites in part:

said update is based upon monitoring activity of a user of said application program, said activity being related to said information, wherein said first of said plurality of fields in said set of said information is updated implicitly.

Claim 6 recites that one of the fields is updated by writing to a database, based upon monitoring the activity of a user of the application. This allows implicit updating of the information. Support for the amendment to Claim 6 may be found at least page 19, lines 23-25 of the specification. It is respectfully asserted that the combination of Hoover, Challenger, and Gasior fail to teach or suggest the limitations of Claim 6. As such, allowance of Claim 6 is respectfully submitted.

The rejection cites Hoover at col. 3, lines 14-24, col. 39, lines 54-64, and col. 53, lines 23-27 with respect to the limitations of Claim 6. Applicants

respectfully submit that Hoover fails to teach or suggest the limitations of Claim 6 in these passages or elsewhere. Applicants respectfully assert that Hoover's monitoring of the status of data is not monitoring activity of a user, as claimed. Hoover discloses that the status of data is monitored so that users have access to the most current information available on the network (Hoover col. 3, lines 14-24). Further, Hoover's monitoring of the status of data is not used to implicitly update information, as claimed.

Further, Applicants respectfully submit that Hoover's monitoring program (Hoover col. 39, lines 45 - col. 4, line 24) does not write to the databases. Therefore, Hoover's monitoring program does not teach or suggest implicit updating of information, as claimed. In contrast, Hoover's monitoring program is for processing requests (Hoover, col. 39, lines 48-53).

Still further, Applicants do not understand the passage of Hoover at col. 53, lines 23-27 to teach or suggest monitoring user activity, as claimed. Nor does this passage teach or suggest implicit updating of information, as claimed. Rather, this passage in Hoover concerns issuing a 'get' message to retrieve demographic data about a patient. For example, Figure 28 illustrates that information about patient John Doe is searched for, retrieved, and displayed. However, John Doe is not a user of the application program. Therefore, getting information about John Doe does not teach or suggest the limitation of Claim 6.

Applicants respectfully assert that Challenger and Gasior fail to rectify these deficiencies in Hoover. Therefore, the combination of Hoover, Challenger, and Gasior fail to teach or suggest the limitations of Claim 6. As such, allowance of Claim 6 is respectfully submitted.

Claim 8

Amended Claim 8 recites, in part:

said repository providing a parameter to said application program that is used to track active user records stored in said cache; said repository receiving said parameter from said application program in order to track a user record associated with said call; and said repository deleting said user record from said cache if said user record is inactive, based on the received parameter.

Claim 8 has been amended to indicate that active user records are stored in the cache. Claim 8 has also been amended to indicate that a given user record is deleted from said cache if the user record is inactive. Support for this amendment may be found in the specification at least at page 22, line 12 - page 23, line 5.

Applicants respectfully assert that the rejection fails to discuss all of the limitations presented in Claim 8 prior to the present amendment. Therefore, the rejection fails to present a prima facie case of obviousness. In particular, to Applicants' understanding, the rejection of Claim 8 fails to discuss the claim limitations related to "tracking active user records" and the

claim limitation, "deleting said user record if said user record is inactive, based on the received parameter."

Further, Applicants respectfully assert that the combination of Hoover, Challenger, and Gasior fails to teach or suggest the limitation of Claim 8. Hoover may teach that an application program passes arguments in a call; however, Applicants do not understand Hoover to teach or suggest that the passed argument is used to track active user records stored in said cache, as claimed. Furthermore, Applicants respectfully assert that Hoover fails to teach or suggest, "deleting said user record from said cache if said user record is inactive, based on the received parameter," as claimed.

With respect to the rejection of Claim 8, the rejection cites Hoover at col. 29, lines 1-4 and lines 32-50, and col. 54, lines 15-17. Hoover, in the passages on column 29 is discussing a general form of a message that is depicted at col. 28, line 63. That message comprises "security parameters" and "instance attributes". Column 29, lines 1-11 of Hoover explains that the security parameters identify which users have access to particular information, and the instance attributes pertain to the instance of the object that is to be created and may contain search arguments. However, the security parameters and instance attributes are not used to track active records, as claimed. Rather, the security parameter describes who may access

information. The instance attribute may be used to identify an object, but is not used to track active records, as claimed.

Hoover at col. 54, lines 15-17 discusses sending a search request with search parameters to the ORB. However, Applicants respectfully assert that searching for an object does not constitute the claimed, "tracking an active user record stored in a cache." Applicants assert that the claimed tracking of user records is not a search to locate a user record. Moreover, Applicants note that the search that Hoover teaches is not performed in a cache.

Challenger and Gasior fail to rectify these deficiencies in Hoover, in that Challenger and Gasior fail to teach or suggest a parameter used to track active user records in a cache. Furthermore, Challenger and Gasior fail to teach or suggest the limitation of a, "repository deleting said user record from said cache if said user record is inactive, based on the received parameter." Therefore, the combination of Hoover, Challenger, and Gasior fail to teach or suggest the limitations of Claim 8. As such, allowance of Claim 8 is respectfully submitted.

Claim 38

Claim 38 recites, in part:

wherein said program uses a first application program interface that allows reading and updating records ... wherein said first application program interface is usable via an object request broker.

Hoover fails to teach or suggest an API useable through the ORB that allows reading and updating records on the plurality of databases. Applicants respectfully assert that Hoover teaches updating the data at the local client sites via the client's API. Applicants note that Hoover teaches an ORB that has an API supporting "SEARCH, ADD, GET, UPDATE." Hoover's UPDATE message is not used to actually update the record, but rather for the client nodes to report that a record was updated. Thus, Hoover fails to teach or suggest the claimed, API useable through the ORB that allows updating records on the plurality of databases.

Challenger may disclose numerous API's; However, Applicants do not understand Challenger to teach or suggest one API useable via an ORB and another not usable via the ORB, in the manner claimed in Claim 38.

For the forgoing reasons, Claim 38 is believed to be allowable over the prior art. Applicants earnestly request allowance of Claim 38.

New Claim

Claim 41 has been added. Support for Claim 41 may be found in the specification at least at page 15, line 9 - page 16, line 3.

Claim 41 recites, in part;

wherein said stored mapping of said fields to said databases maps fields associated with said requested set of information to databases,

and wherein said first field is mapped to said first database and said second field is mapped to said second database in said stored mapping.

Applicants respectfully assert that the cited art fails to teach or suggest the limitations of Claim 41. Applicants respectfully assert that Hoover teaches that the map table (120) comprises a mapping from an object identifier to table names (Hoover, Fig. 7). Hoover's map table may also indicate a database that stores the aforementioned tables (Fig. 6, 140). However, Hoover does not teach or suggest the claimed stored mapping of fields associated with said requested set of information to databases.

This claimed embodiment maps fields to databases. For example, Figure 3 illustrates an embodiment of a mapping of the fields associated with a set of information to the physical locations in databases. Each set of information comprises a number of fields. However, the data may be organized in a different way on databases than it is organized in the sets of information. Embodiments of the present invention keep track of the physical location of each field. Applicants respectfully assert that Hoover's ORB does not provide a mapping to the databases at the field level. Rather, the ORB only knows where each Hoover's object attribute tables are stored. Thus, Hoover is unable to provide the finer granularity of the embodiment of Claim 38, in which a first field is mapped to a first database and a second field is mapped to a second database in a stored mapping.


Applicants assert that Hoovers' organizational structure forces all of the fields associated with a given object attribute table to be stored on each database to achieve the homogeneous structure on Hoover's remote databases. In contrast, embodiments of the present invention allow for data to be stored heterogeneously on various databases. The stored mapping keeps track of where the various fields associated with a given set of information are located even if this means that fields from a given set of information are spread over several databases.

Applicants respectfully assert that the prior art fails to cure these deficiencies in Hoover. Therefore, Applicants believe that Claim 41 is allowable over the prior art.

CONCLUSION

In light of the above listed amendments and remarks, reconsideration of the rejected Claims is requested. Based on the arguments and amendments presented above, it is respectfully submitted that Claims 2-8, 10, 12-13, 15-18, and 26-41 overcome the rejections of record. Therefore, allowance of Claims 2-8, 10-13, 15-18, and 26-41 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

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